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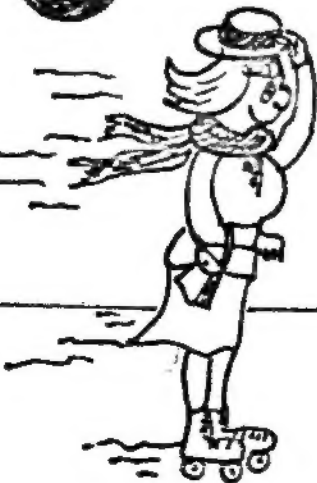
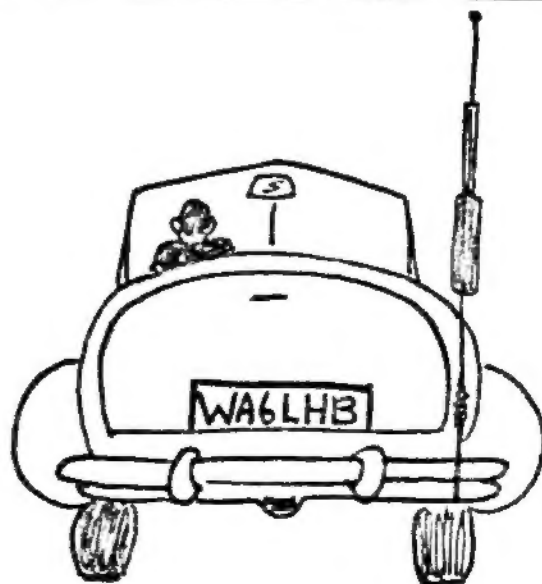
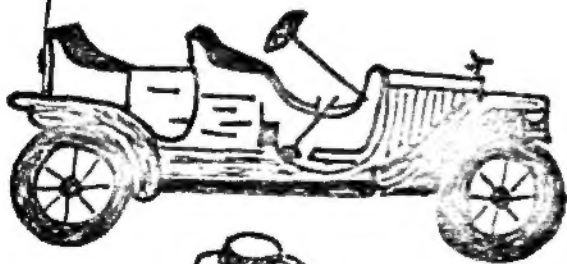
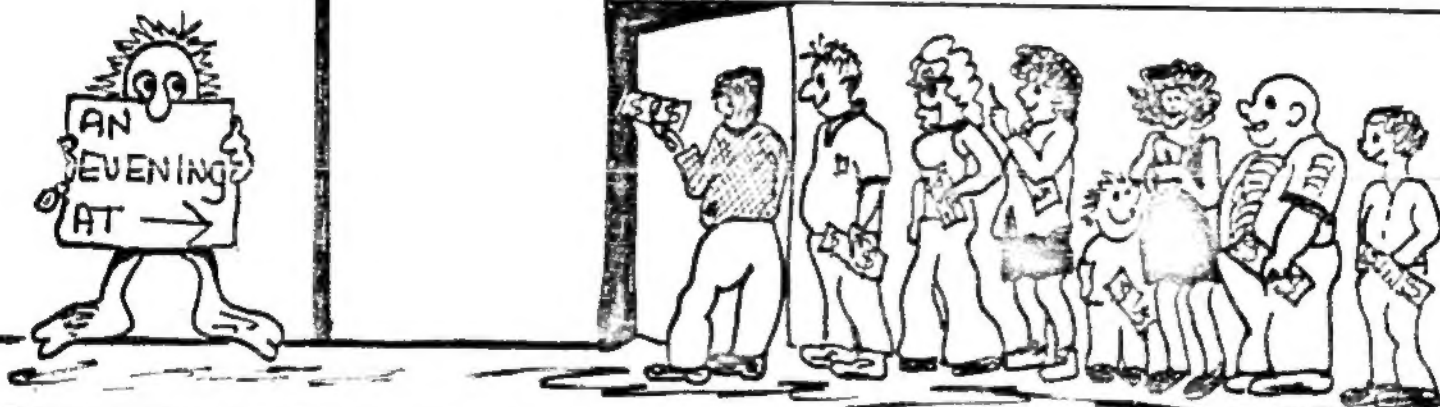
ORANGE COUNTY AMATEUR RADIO CLUB

VOL. XVI, NO. 8

P.O. BOX 95, ORANGE, CALIF. 92668

AUGUST 1975

HEATHKIT CENTER



Jaycee

— 1975 CLUB OFFICERS —

PRESIDENT	ART SHELDON	WA6LHB	832-9676
VICE PRESIDENT	MARTIN RAYMOND	WB6PEX	532-4090
TREASURER	TED GLICK	K6LJA	542-1390
SECRETARY	HAROLD RICHARDS	WA6BJO	544-0033
ACTIVITIES	BOB MALLER	WB6AJV	832-6170
MEMBERSHIP	TINA MCCARTHY	WB6WV	538-6072
PUBLICITY	ROGER DENNY	WB6ARK	994-0416
TVI	BOB ECKWEILER	WB6QNU	639-5074
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	KEN KONECHY	W6HHC	541-6249

EDITOR	NEIL VADNAIS	WA6TZA	839-7378
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OCARC ACTIVITIES

MEETING: 3rd Friday of each month, 7:30 PM at:

Mercury Savings and Loan
1095 Irvine Blvd. (4th Avenue)
Tustin, California

GUESTS ARE ALWAYS WELCOME!!!!

BREAKFAST: 1st Saturday of each month, 8:30 AM at:

Barnaby's Coffee Shop
144 South Tustin Avenue
(just South of Chapman and Tustin Avenues)
Orange, California

15M NET: Club Station W6ZE meets every Wednesday
at 8:00 PM on 21.375 mhz. All amateurs
are welcome to check in. Club and ARRL
bulletins read.

15M CW NET: Club Station W6ZE meets every Wednesday
evening from 7PM to 8PM on 21.175 mhz.
All amateurs are welcome to check in.
Lots of CW practice for everyone.

CALLBOOK SERVICE

The club has copies of the latest U.S. and foreign callbooks which are available at each meeting. Also you can contact Bob Maller-WB6AJV at home (832-6170) on Monday and Thursday evenings between 7 PM and 9 PM if you need addresses. If you have more than one call for Bob to check, he'll get them all and call you back the same night. Also, you can usually catch Bob on the air after the Wednesday evening club net.

THE PREZ SEZ:

The July meeting was a great success. All who attended got a look at Field Day, 1975, through the eye of the camera. Thanks to Ken, W6HNC and Fried, WA6WZO, for the slides and the program. Thanks also to the boys from Foothill Amateur Radio Club who came by and shared their slides of Field Day with us.

Those of you who participated in the OCARC BEACH PARTY at the Newport Dunes on July 26, certainly know that everyone had a good time. Even the ones who lost at volleyball had a good time. We did have a fair turnout, and it was good to see all the KXL's and harmonics joining us for the fun. Another beach party is being planned for the near future.

Another ocean fishing trip is being planned for Saturday, October 4th. This again will be an all day affair out of Dana Point for some local waters fishing. Those interested should get in touch with our Activities Chairman, Bob, WB6AJV, at 832-6170 as soon as possible. Don't Miss It!!

In two months (October Meeting) we will have our annual OCARC AUCTION. So start cleaning out your garage and shack.

This month our meeting will be held at Heathkit Electronic Center, 330 E. Ball Road, Anaheim. This will give those of you who haven't seen the new Heath equipment a chance to look it over.

While driving by Harold's, WA6BJO, house I notice a lot of shiney metal way up there in the air. Looks like a FB set up Harold.

Well, that's about it for this month. See all of you at the meeting at Heathkit.

73, ART Art, WA6LNB

HAM OF THE YEAR AWARDS: Ham of the year awards are planned in which 3 Southwestern Division amateur radio operators will be recognized for outstanding service or an outstanding act performed between October 1, 1974 and Sept. 25, 1975. An amateur will be selected from three categories. The first category consists of an outstanding action or service to amateur radio which does not involve an emergency situation. The second category consists of an outstanding action in emergency communications. The third category consists of an outstanding action in public service. A beautiful plaque and a framed certificate will be awarded to each honoree. Official nomination forms must be received by Sept. 26, 1975. The nomination forms and additional information may be obtained by sending an SASE, business size, to Hamcon '75, P.O. Box 5131, Ventura, Ca. 93003, "Attention Awards Committee". (From Bits and Pieces, ARRL South Western Division Convention Flier)

OPERATING EVENTS: FROM THE PAGES OF QST

Aug. 16-17	New Jersey QSO Party	Sept. 6-7	Maryland-D.C. QSO Party
	World Wide RTTY Contest		Saveria CCS Contest (RI).
	Oregon QSO Party	7	PHI, Tu-Boro RC 2 mtr RTTY
23-24	All Asian DX Contest	10	WLAN Qualifying Run
	Arizona QSO Party	13-14	WAEDC phone
30-31	SSA 50 Contest		CLARA Day Contest
Sept. 3	West Coast Qualifying Run		Pennsylvania QSO Party
6 -7	VHF QSO Party		Washington State QSO Party

safety tips

for you and your family



Electrical Safe-Guard For the Home

■ Ground fault interrupters (GFIs) have been on the market for about 12 years now, and have become commonplace protection against electrical accidents in industry. Today GFIs are not an exclusively industrial item—they are becoming an important means of reducing the number of shocks and electrocutions that occur in American homes each year as well.

Although your employees may be familiar with GFIs on the job, they should appreciate an explanation of how a GFI can guard them and their families at home.

The following information is extracted from an article in *Family Safety*, a publication of the National Safety Council. It was authored by Alan Reed, manager of engineering services for Daniel Woodhead Company. Mr. Reed represents the National Safety Council on several committees involved with revisions of the *National Electrical Code*.

If you're like most Americans, you're probably asking electricity, our favorite domestic servant, to do more for you all the time. Today you may use it to brush your teeth, style your hair, or open a can. It undoubtedly makes your life easier, but it can threaten you and your family as well.

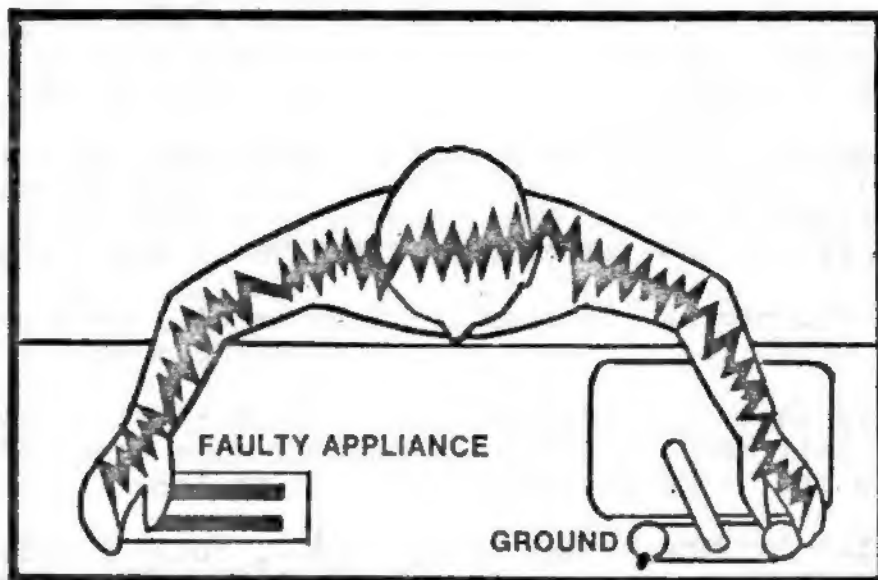
Fortunately, a small device that could eliminate most electrical accidents is available to homeowners.

The device, called a GFI or ground fault interrupter, does just what it says. It senses current leakage and, in a fraction of a second, shuts off the electricity and interrupts its faulty flow to ground—possibly through you.

Many times each day you and other members of your family "ground" yourselves electrically. Each time you touch a water faucet, when you're in the shower or stand on a damp concrete floor, or when you step on the earth itself, you provide a path to ground for electric current.

If, during any of those times, you touch the "hot" side of an electric circuit, you become a part of that circuit, and your body conducts electricity.

At ordinary house voltage, the



The human body can complete a dangerous electrical circuit between a faulty appliance and a ground.

amount of current that will kill you is as little as 50 milliamperes, or roughly that needed to light a 7½ watt Christmas tree bulb. That much current can send your heart into fibrillation, a break in the rhythm of heartbeat and pulse, that destroys the heart's function as a life-sustaining pump.

All of which may explain why electric shock kills about 1,000 Americans every year, many of them in or around their homes.

Conventional electrical protection isn't enough. Fuses and circuit breakers protect you from only large electrical currents.

But a ground fault interrupter also protects against current leakage too small to activate conventional devices—yet powerful enough to kill, injure, damage equipment, and cause fires.

The GFI is placed between the electrical service and the appliance it serves. The GFI measures the amount of current going to the appliance and the amount returning. Very simply, it can be thought of as an electronic adding machine. As long as the current going into the appliance is equal to the

amount coming out, the GFI does nothing but act as a constant (and sensitive) monitor.

In order to see how a GFI works to protect people, consider a receptacle that has GFI protection and is located next to a swimming pool. Then let's take someone out by the side of the pool and give him a faulty TV set to adjust.

There is enough current leakage on the metal cabinet of the TV set so that some of the current flows through him and the pool deck, and finds its way back to the electrical service. *In this case the current passing through the GFI doesn't add up to zero, so the GFI immediately reacts to the imbalance by opening the circuit, thereby protecting the man from electrical injury.*

It should be emphasized that anyone in a similar situation who becomes part of a ground fault circuit will experience a shock in the fraction of a second during which the GFI is opening the circuit.

But in order for the GFI to obtain an Underwriters Laboratories label, it must operate below a specified com-

bination of time and current well below the point at which electric shock will inhibit breathing, heart action, and sustained muscular contraction.

Fire protection too

The GFI also provides an additional level of fire protection in ground faults not involving people. Such ground faults may not be great enough to open a fuse, but they may cause over-heating, destroy insulation on wiring, and start fires.

A GFI doesn't protect against "line-to-line" contact, such as when a person holds two "hot" wires or a hot and a neutral wire in each hand. And it can't tell the difference between an appliance plugged into it and a human being plugged into it. Fortunately, those cases are rare; ground faults comprise about 95 percent of all home electrical injuries.

The GFI is really not a new device. A cruder form has been used in Europe for many years. In South Africa they've been required in the home for more than 20 years, and in all that time there hasn't been a single recorded electrocution in homes protected by the device.

The first American GFIs were bulky and expensive. A unit the size of a shoebox cost about \$150. But miniaturization technology has reduced the size of today's GFIs so they can be substituted for a unit in

the circuit breaker box or inserted into a household outlet. And the price has come down to less than \$50. Several catalogs of large mail order companies list them for just a little more than \$30.

Even more important than price and compact size in gaining public acceptance have been recent changes in the *National Electrical Code* that governs new construction.

Since 1971 the code has contained mandatory requirements for GFIs. It requires them for permanently installed home pools in which submerged lights are used. It requires them for the protection of receptacles located in a certain distance from the pool, and they're required for all of the electrical equipment used on storable or portable pools, such as pumps, filters, and lighting equipment.

In addition to pools, all outdoor receptacles on residences are now required to be protected by GFIs. None of those requirements are retroactive; they apply only to new construction. In the 1975 Code, there are additional mandatory requirements for GFI protection in bathrooms.

More danger in yard

The reason outdoor receptacles were specified as the first step in mandatory code requirements is that an Underwriters Laboratories survey found it wasn't the basement or

kitchen where most electrical accidents occur as one might suppose; instead, the outdoors had the highest percentage.

More than half a million GFIs are in use today, and from such use has come evidence that they are making the home electrically safer. An excerpt from a recent letter provides all the testimony you need to install a GFI in your home:

"My youngest boy, nine years old, was opening a can of soup with an electric can opener. The can opener was located on the counter beside the kitchen sink. He decided to get a drink of water at the same time he was opening the soup.

"As soon as he touched the cold water faucet the GFI tripped out (shut off the electricity). He felt a small shock.

"I took the can opener apart and found a bare wire on the motor touching the metal case. If it had not been for the GFI, he would most certainly have sustained some sort of injury, because he would have been directly across the 115-volt line with no protection at all."

There's no doubt about it. GFIs are to electricity as water is to fire—only faster. *Much* faster!—End.

Material for this article comes from the *National Safety News*, May, 1975 issue.

AUGUST CLUB MEETING

This month's club meeting will be held at the Heathkit Electronic Center, 330 E. Ball Road, Anaheim, at 7:30 P.M.. See the new SB-104 in action.

After a short meeting, a tour of the store, with demonstrations of equipment will be held. This is always an interesting visit. Don't miss it!

F.C.C. LICENSE COURSE

Santa Ana College will offer a F.C.C. course this fall, preparing the student to pass various classes of radio-telephone operator licenses.

Course Title: Electronics 073 F.C.C. License
Time: 18:00 - 21:00 Wednesday Evening
Instructor: P. Hanf

Ticket #: 1498
Room #: H-108

SUMMARY OF ARRL AND FCC PROPOSALS :

At its meeting on May 15-16, 1975, the ARRL Board of Directors established the League position on the FCC restructuring proposal, Docket 20282. The Directors were guided by the results of a survey of the entire U.S. membership of the League which was conducted in March and April, and to which over 56,000 members responded. The Board did not endorse the concept of a dual-ladder structure dividing amateur radio into hf and vhf "tracks," but instead proposed a unified, logical progression up from a basic entry-level license, with each class of license including all privileges of those grades below it.

Here is a summary of how present amateur licensees would be affected by the FCC proposal, and by the ARRL counter-proposal:

<u>Amateur Extra</u>	<u>FCC proposal</u>	<u>ARRL proposal</u>
power:	2000 watts peak output	1000 watts dc input
frequencies:	lose exclusive phone bands on 75 and 15 m.	retain 75-meter exclusive phone band, add a new one on 20 meters from 14175-14200 kHz
tenure:	lifetime operator license	lifetime operator license
examination:	eliminate written exam	retain written exam
<u>Advanced</u>		
power:	2000 watts peak output	1000 watts dc input
frequencies:	gain access to Extra class 75 and 15 m. phone segments	gain access to Extra class 15 m. phone segment
call signs:	no change	may obtain preferred "one-by-three" call, if desired

<u>General</u>		
power:	500 watts peak output	1000 watts dc input
modes:	A1, A3, and F3 <u>only</u>	all present modes
frequencies:	lose 29.0-29.7 MHz, gain 50.0-50.1 MHz	lose nothing, gain 50.0-50.1 MHz
station licenses:	lose right to hold club, repeater, and control station licenses	retain right to hold all "special" station licenses
mail exam supervision:	lose right to supervise exams by mail	retain right to supervise exams by mail

Conditional

power, modes, frequencies, station licenses would be affected in the same way as Generals.

tenure:	lose right to renew license, except in case of disability	retain right to renew license
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CONTINUED

SUMMARY OF ARRL AND FCC PROPOSALS - CONTINUED

<u>Technician</u>	<u>FCC proposal</u>	<u>ARRL proposal</u>
power:	500 watts peak output	1000 watts dc input
modes:	A1, A3, and F3 <u>only</u>	all present modes
frequencies:	gain 50.0-50.1 MHz, 144-145 MHz	gain 29.0-29.7, 50.0- 50.1, 144-145 MHz
station licenses:	lose right to hold club, repeater and control station licenses	retain right to hold all "special station" licenses
Novice privileges:	all, with separate license	all, automatically
tenure:	lose right to renew license if taken by mail, except in case of disability	retain right to renew license

<u>Novice</u>		
power:	250 watts input	75 watts input
tenure:	5 years, renewable	5 years, non-renewable, but reobtainable without mandatory lapse upon re- examination
other privileges:	none	all privileges of new Basic Amateur class

Another important FCC proposal was for the creation of a new entry-level class of license with vhf privileges. Here is a comparison of the FCC and the ARRL versions of this new license:

	<u>FCC proposal</u>	<u>ARRL counter-proposal</u>
name:	Communicator	Basic Amateur
frequencies:	all above 144 MHz	145.0-145.5 and 222-225 MHz only
power:	250 watts input	50 watts input
modes:	F3 only	A1, A2, A3, and F3
requirements:	Novice-level written exam on vhf techniques, no code exam	Novice exam designed to acquaint applicant with broad range of amateur radio, knowledge of Morse code without speed requirement
tenure:	5 years, renewable	5 years, non-renewable, but re- obtainable without mandatory lapse upon re-examination

Complete details on the ARRL Board meeting will appear in the July issue of QST, and the complete text of the League filing will appear in a subsequent issue - probably August. A summary of the results of the membership survey on restructuring also will be in an early issue.

Support for the League position on restructuring can be expressed in two ways. First, you can send a letter to the Amateur and Citizens Division, FCC, Washington, DC 20554, endorsing the ARRL position on amateur restructuring. Even better, you can encourage the members of your club to join the ARRL. A further increase in League membership, already at its highest level in history, will be a message to the FCC that amateurs are united in their support of a proposal that would permit present licensees to retain their privileges. Your support of the League will be extremely important as we continue the tasks of strengthening the amateur radio service and preparing for the world frequency conference on the horizon. The League's position on restructuring of our service has been reached with those goals in mind.

"RF"

ORANGE COUNTY AMATEUR RADIO CLUB

AUG. 1975



SOUTH WESTERN DIVISION CONVENTION

OCTOBER 24-26, 1975

Holiday Inn

VENTURA, CALIFORNIA

VHF/UHF ANTENNA MEASUREMENT CONTEST Sunday, Oct. 26 - 9:00 am

VENTURA COUNTY FAIRGROUNDS PARKING LOT



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POST OFFICE BOX 95
ORANGE, CALIFORNIA 92683

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